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ABSTRACT

The speech contained in this document originally accompanied a slide presentation on the altered photographic image. The discussion examines the links between photographic tradition and contemporary visual imaging, the current transformation of visual imaging by the computer, and the effects of digital imaging on visual arts. Photography has a long tradition as a purveyor of "reliable" visual information and as a medium of truth, but the ability of the computer to manipulate images has generated concern about pictorial verity. Creating altered images has been possible since the beginning of photography, because among other things artists could combine and superimpose images or add color, but new technologies and electronic tools continue to blur distinctions between actual and represented reality. Emerging visual art techniques create new ways of influencing perception and new modes of presentation. Artists of future generations must consider the question of whether the computer will eventually be able to generate its own art rather than simply mimic style. Even though the gap between the artist and the technology is narrowing, it seems evident that human input and the creative process will remain important. (BEW)

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"Altered Images: The Camera, Computer, & Beyond"

Mary Stieglitz

ED 391 479

Introduction

This discussion complements a slide presentation on the altered photographic image. Examined are the links of photographic tradition to contemporary visual imaging, the current transformation of visual imaging by the computer, and the effects of digital imaging on the visual arts.

Photography at its advent, and digital imaging over a century later, both resulted in significant transformation in visual imaging. The evolution and profusion of digital imaging have escalated the need for proficiency in analyzing visual messages. Digital imaging also increased anxiety about the verity of images. Visual literacy skills are essential as we move to a culture that is increasingly visual.

Links

Photography stunned nineteenth century pictorial art with its ability to 'accurately' record the visual world. Now digital imaging has jolted photography's reality reference with its rapid transformations and new forms.

The wizardry of digital technology is reminiscent of the magical quality attributed to photography in its early years. Photography experienced very rapid proliferation during the nineteenth century. Coupled with the introduction of photomechanical printing processes, photography established the age of machine pictures and reproductions. The twentieth century generated a multiplicity of imaging processes, leading to computer-aided digital image systems. The links between photography and digital imaging are numerous. While different from a technical viewpoint, they share roles as vehicles of change and use of image alteration. Both experienced a repercussion to 'machine aided' art, questions about the reality of their representations, and concern about creativity. Davis (1995) paralleled their beginnings: "Modern photography was born just over a century ago from the impact of three fundamental technical innovations: the dry-plate, the hand camera, and the halftone. Now, in the 1990's, it seems evident that the computer is creating a revolution of similar magnitude in the production and dissemination of pictures."[1]

The history of imaging is a succession of systems devised to visually document and reconstruct the visible aspects of our world. Photography has a long tradition as a privileged purveyor of 'reliable' visual information. The nineteenth century commenced by believing that what was reasonable was true, and it wound up believing that what it saw in photographs was true. Photography's traditional distinction as a medium of truth is affected by digital imaging. One result is increased anxiety about the reality of images. Is photography any longer evidence of anything?

The altered image has always existed, yet computer manipulated images

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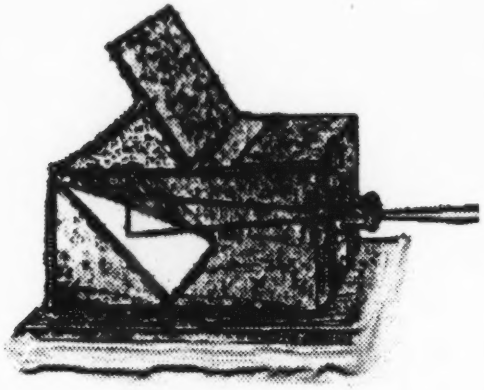
have generated new concern about pictorial verity. A brief probe of photographic history provides a base to consider the altered image in our current era of transition. A photographic record doesn't mean the subject exists. Photographers have been selective, malleable, and often purposefully misleading with their images.

The camera inherently produces altered images. It contracts and distorts the three dimensional world onto a two dimensional surface.



Early camera obscura. By nature, the camera compresses and delineates three dimensions onto a two dimensional surface from a particular vantage point.

Early in photography, artists combined and superimposed images, arranged scenes, added color, recorded movement and made alterations to both negative and print. The ingenuity of the photographer is unlimited in selection, composition, arrangement of subjects, camera control, darkroom manipulation, and print alteration. Altered images were produced for artistic effect, political statements, market enhancement, and pure deception. Early photography is rich with convincingly hand colored photos, spirit photos, staged scenes and combined images.

Margaret Harker Farrand (1992) examined intentions and achievements in early composite photographs. "From earliest days photographers thought of ways by which they could extend the limitations of their medium. The remarkable ability of photography to encapsulate the scene in front of the camera in minute detail on a sheet of light sensitive paper or a glass plate was sufficient for many artists to fulfil their image-making quest. For others it was too restrictive, with limitations on extent of view, spatial relationships, sequential time and movement, as well as the uniformity of emphasis on form and detail throughout the image."[2]

Developing technologies continue to blur distinctions between actual and represented reality, and alter both the technical and conceptual viewpoints of image making. Traditional notions of visual art, imaging, photography, and reality are challenged. Twentieth century visual technologies have further erased the distinction between the actual and the represented world.

The role of representing the three dimensional world has expanded with electronic tools. The development of three dimensional imaging technologies and virtual reality has altered visualization. Images manipulated by the computer further subvert the 'realism' associated with photography and invite new excursions in visualization. Both traditional photography and digital imaging re-present our visual world.

Transformation

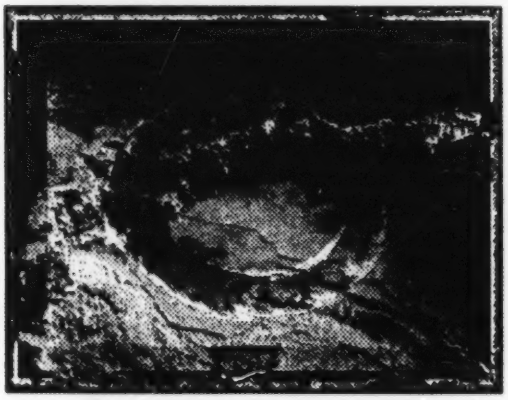
As photography transformed the visual arts, digital imaging is changing photography and visual communication. New technologies result in new tools, forms, functions, and potential for novel aesthetic constructs, both visual and conceptual. New ways of influencing perception and thought of what is real abound. Some digital art forms are accessible only through a computer, may be interactive, or exist in alternative forms. The information highway as a new vehicle of mass communication will instill debates as digital imaging becomes a global representation, just as photography did in its first 160 years.

Digital imaging encompasses a diverse array of techniques and applications, from the computer as an electronic replacement for traditional media, to the exploration of digital tools for their unique capabilities. Electronic tools offer us the ability to generate and manipulate more images, by more means than ever before.

The core of slides in this presentation offer a visual commentary ranging from historic precedents to present experiments. Examples of altered imagery are as fascinating in early photography as in contemporary work. The slides illustrate a rich repertory of artists, images and forms. The motives may seem similar, perhaps just the tools have changed.

Effects

The art / machine debate began in the Industrial Age, and continues with the quandary of photography, the computer and beyond. Just as photography proved to be a new means of expression, creation, innovation, and communication; digital imaging now offers new modes of visualization and presentation.



Mary Stieglitz 'Cirque', 1995

Traditional photography will continue, but the influence of electronic technologies will be abiding. The nature of art and the creative process is again scrutinized in relation to computer technology. The electronic revolution offers alternatives that were previously not available. The camera is vital but not final.

Howard Huff 'Copper Basin #1', 1993

We are at a critical historical juncture. The widespread adoption of electronic technology is providing new avenues of exploration. The synergistic potential reflects the influence of photography on painting in the nineteenth century. Technology is rapidly evolving, and issues concerning the content and fabric of visual imaging are now being addressed.

Beyond

One evident question centers around fears that machines could replace humans. Can the computer create art? Will we reach a point in time where the computer is a creative / intelligent entity? At this time, we know that it can extract commonalities and patterns from differing sources. Pattern recognition and the ability to construct new combinations which have a similar pattern is feasible. The computer can generate forms 'in the style of' if it is provided enough examples of that style and asked to extract certain characteristics.

If computers can abstract and extract various 'qualities / elements / structures' from great works of art (visual, musical, culinary, literary, et al), and recombine those elements in new constructs, would this produce new 'great works'? Could the works possess the unique qualities of those produced by humans?

Douglas Hofstadter (1995), in a recent presentation to the International

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Symposium on Electronic Art, considered this question and asked if there might be something deeper than patterns and basic levels of style. The computer can produce 'look alikes' on some level, but what is at the center? Does it get it all the way down to the core, the profound, the moving? Does art come from the core? Are these higher levels intuitive, non-verbalizable? It is easy to imitate, but inventing style is related to the depth of the human mind. Style breakers are considered creative, but anyone can work 'in the style of', producing good imitations.[3]

When the computer mimics style the greatness may be in the input. The invention of the style done was by the artist whose patterns were programmed into the computer. Jazz great Dave Brubeck (1995) commented in a recent concert that 'breaking the rules' was critical to his art and the style of his music. He referred to changing signatures within works, and interfacing with other musical traditions.[4]

Many regard computer use as relinquishing 'hi touch', yet the human factor is critically important. The machine plus the human factor is more synergistic than machine alone. The tool alone is never the artist. Technical proficiency alone does not produce the aesthetic statement. The tool in teamwork with the artist serves the artistic process best.

Tools and techniques only serve, it is the conceptual and visual encounter that endures. The interaction of human and machine is richly expressed in the visuals presented. The gap between artist and technology is narrowing as artist's intuitively meld the real with fabrication. This obscures the distinction between the actual environment and the altered image.

Ritchen (1990) comments that the primary question to be addressed to ourselves as a society is "Will we put the new technology to use recycling what we already know or use it to attempt new understandings? It is up to us, if we can, to take advantage of the new technology's potentially illuminating perspectives; otherwise, it will be we who are taken advantage of and diminished, frozen in our own image."[5]

New technologies enable artists to look at things in new ways, push technique beyond the traditionally possible, and to go beyond mere fascination with the tools to personal, individual statements.

The basic way that visual images are created has fundamentally changed, as has the way we think about those images. Electronic imaging will necessitate new ways of perceiving, knowing and judging images.

Note:

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References:

1 Davis, Keith F., *An American Century of Photography, from Dry Plate to Digital*, the Hallmark Photographic Collection, Harry Abrams (with Hallmark),New York, 1995, p.317

2 Farrand, Margaret Harker. 'Composite Photographs: Intentions and Achievements', *Photoresearcher*, Number 4, September 1992, p.4

3 Douglas Hofstadter, *panel* remarks, program of the Sixth International Symposium on Electronic Art, Montreal, Canada, September 21, 1995

4 Dave Brubeck, commentary in *concert* performance, Cathedral of the Rockies, Boise, ID, October 8, 1995

5 Ritchen, Fred. *In Our Own Image, The Coming Revolution in Photography*, Aperture, 1990, p. 146